ATTACHMENT I: WETLAND FUNCTIONS AND VALUES ASSESSMENT

1.0 WETLAND FUNCTIONS AND VALUES ASSESSMENT

1.0 Introduction

This functions and values assessment ("FVA") is designed to evaluate all wetland areas under state or federal jurisdiction that may be impacted by the NECEC Project and demonstrate that wetland and surface water alterations or impacts that will result from construction and maintenance of the proposed NECEC facilities will not have an unreasonable adverse effect on existing uses, wildlife habitats, natural water flow, water quality, flooding, or outstanding river segments.

The area of wetland impacts associated with the NECEC Project will be minimized to the extent feasible during planning and construction. All stream and wetland crossings will be executed in accordance with CMP's Environmental Guidelines that will be employed during construction of the NECEC Project.

Three general categories of wetland alteration will occur as a result of construction and maintenance of the NECEC Project; forested wetland conversion, permanent wetland fill, and temporary wetland fill. These impacts are based on the construction type of the Project component. Habitat conversion (i.e., forested wetland conversion) will occur where forested wetlands are permanently converted to open, scrub-shrub, or emergent habitats to accommodate new transmission corridor or to widen the cleared expanse of existing transmission corridors.

Permanent wetland fill will occur where structure installation or substation development requires permanent fill in wetland areas.

Temporary wetland fill will occur during the use of temporary construction access roads and structure preparation areas, typically when equipment mats are placed in wetlands.

The ways in which the proposed NECEC Project may affect wetlands, via these activities, are further described below.

1.0.1 Habitat Conversion

Portions of the transmission components of the NECEC Project will require habitat cover type conversion in some wetland areas through the establishment of a new transmission corridor and from the widening of the cleared maintained portion of the existing transmission line corridors needed to accommodate the new NECEC Project facilities. Forested wetlands that are within the area of newly cleared corridor will be permanently converted to emergent and shrub or scrub-shrub wetlands. Forested wetlands within the limits of clearing for the Project will require initial trimming or removal of tree species and specimens

that are capable of interfering with overhead transmission lines (so-called “capable species”). Further, transmission line operations and maintenance requires periodic control of capable species; this practice will result in the permanent maintenance of early successional plant communities and habitat.

This assessment provides a general comparison of the functions and values provided by existing forested wetlands versus scrub-shrub and emergent wetlands that will be maintained after construction of NECEC facilities.

1.0.2 Permanent Wetland Fill

Certain activities necessary to the development of the transmission and substation components of the NECEC will require fill. In some instances, areas that must be filled coincide with wetlands. In such instances, wetlands (or portions of wetlands) will be permanently filled and thereby, permanently transformed to uplands. Siting of the transmission line structures is designed to avoid permanent wetland fill to the maximum extent practicable. NECEC activities that will require permanent fill in wetland areas include transmission structure installation, including backfill, and, in some instances, concrete foundations and guy wire anchors, and, the development of new substations.

1.0.2.1 Structure Installation

Structure installation will require areas of permanent fill associated with the foundation of each structure. In instances where structures occur in wetlands, this fill will constitute a limited area of permanent wetland habitat loss. Permanent fill will consist of the structure itself and backfill materials, which may include native spoil, stone, concrete, or a combination thereof. Direct embed structures will typically have a cone of crushed stone around their base. Ground that is disturbed during direct-embed structure installation will be restored by replacing the topsoil; mulch will then be placed over the exposed soil and herbaceous vegetation will be allowed to establish naturally. For permitting assessment purposes, it is assumed that functions in wetlands associated with structure installations are lost within the entire area of disturbed soil, even though emergent wetland conditions are reestablished.

1.0.2.2 Substation Development

NECEC substation development will require fill. Permanent wetland fill will be required in locations where the proposed footprint of the substation development includes wetlands. The proposed NECEC substations that will require fill in wetland areas, and the extent of wetland fill associated with each development is presented in Table 1 below and discussed in further detail below.

Table 1: Wetland Impact Summary for Substations

Station	Wetland Impact Areas (Fill) (ac. & sq. ft.)
Fickett Road Substation	1.33 acres / 57,935 sq. ft.
Merrill Road Converter Station	3.16 acres / 137,650 sq. ft.
Moxie Gore Termination Station	0.26 acres / 11,279 sq. ft.
West Forks Termination Station	0 acres / 0 sq. ft.
Total	**4.75acres / 206,864 sq. ft.**

1.0.3 Temporary Wetland Fill

The establishment of temporary access ways and transmission structure preparation pads will require the placement of temporary fill in wetlands in order to accommodate construction equipment access for tree cutting and structure installation activities. This temporary fill will typically consist of equipment mats placed on the ground surface. On occasion, when very soft mineral or organic soils are encountered, it may be necessary to construct these access ways utilizing geo-textile fabric overlain with equipment mats or clean gravel. The purposes of using mats include (1) providing a flat safe surface upon which construction equipment can traverse and work from, (2) protecting vegetation and root zones, (3) minimizing the extent of disturbed soils, and (4) reducing excessive soil compaction and protecting soil horizons. For permitting assessment purposes, it is assumed that functions in wetlands associated with temporary fill are only temporarily unavailable and are not permanently lost (i.e., these areas will be fully restored following the completion of construction). Areas of temporary fill for access road placement will be comprised of relatively narrow (around 20 feet wide) linear areas . Areas of temporary fill for structure preparation pads will range in size from approximately 2,000 to 8,000 square feet, depending on structure type. Impacts from temporary fill associated with access road and structure preparation pad installation are relatively small and do not significantly, or permanently, impact wetland functions and values. These temporary fill areas will be found throughout the NECEC Project area.

1.1 Methodology

Wetland functions and values were assessed in accordance with the Wetlands Functions and Values: Descriptive Approach as described in the U.S. Army Corps of Engineers (USACE) Highway Methodology Workbook. This is a qualitative descriptive approach currently used by the USACE New England Division for purposes of the Section 404 permit program. As part of this method, the evaluator examines a number of “Considerations/Qualifiers” that can be used as indicators or descriptors of

particular functions and values. The Considerations/Qualifiers are assigned to wetlands based on the judgment of the evaluator, using site observations and field data sheets. The USACE Highway Methodology Workbook ("Workbook") defines functions and values as follows:

Functions: *Functions are self-sustaining properties of a wetland ecosystem that exist in the absence of society. Functions result from both living and non-living components of a specific wetland. These include all processes necessary for the self-maintenance of the wetland ecosystem such as primary production and nutrient cycling, among others. Therefore, functions relate to the ecological significance of wetland properties without regard to subjective human values.*

Values: *Values are benefits to society that derive from one or more functions and the physical characteristics associated with a wetland. The value of a particular wetland function, or combination thereof, is based on human judgment of the worth, merit, quality, or importance attributed to those functions.*

Eight functions and five values, defined by the Workbook were considered during the FVA for the NECEC Project. They are as follows:

A. Functions:

1. *Groundwater Recharge/Discharge*

   This function describes a wetland's ability to act as a recharge site, such as its potential to provide water to an aquifer or its ability to act as an input site for groundwater to discharge to the surface (*i.e.*, springs and seeps).

2. *Floodflow Alteration*

   This function considers a wetland's ability to store and slowly release floodwaters over an extended period of time following storm events.

3. *Fish and Shellfish Habitat*

   This function considers the potential for a wetland and intermittent or perennial waterbodies associated with a wetland to provide habitat for fish and shellfish.

4. *Sediment/Toxicant Retention/Pathogen Retention*

   This function describes a wetland's effectiveness at trapping and retaining potentially harmful sediment, toxicants, and pathogens.

5. *Nutrient Removal/Retention/Transformation*

   This function considers a wetland's ability to remove nutrients such as phosphorus and nitrogen from runoff and prevent the nutrients from reaching surface and groundwater by retaining and transforming them.

6. *Production Export*

   This function measures a wetland's effectiveness at producing foods for living creatures or other usable products such as timber for humans.

7. *Sediment/Shoreline Stabilization*

   This function considers a wetland's potential for stabilizing and protecting sediments and shorelines from erosion.

8. *Wildlife Habitat*

   This function relates to a wetland's ability to provide habitat for various species of wildlife generally associated with wetlands and adjacent uplands. This includes habitat for both non-migratory and migratory wildlife species.

B. Values:

1. *Recreation (Consumptive and Non-Consumptive)*

   This value describes a wetland's ability to provide opportunities for consumptive activities such as hunting and fishing, or non-consumptive activities such as boating, bird watching, and swimming.

2. *Educational/Scientific Value*

   This value considers a wetland's potential for providing teaching and learning possibilities and opportunities for scientific work and research.

3. *Uniqueness/Heritage*

   This value relates to a wetland's potential for providing special values such as possessing historically significant sites and unique natural areas.

4. *Visual Quality/Aesthetics*

   This value considers the aesthetic and visual quality associated with a wetland.

5. *Threatened or Endangered Species Habitat*

   This value pertains to a wetland's potential for harboring rare, threatened, and endangered species and their habitat.

Of the thirteen functions and values commonly attributed to wetlands, a total of nine functions and values are associated with wetlands in the Project area. In general, the dominant natural wetland community types in the NECEC Project area are characterized as palustrine forested, emergent and scrub-shrub. The majority of the wetlands in the Project area provide some groundwater recharge/discharge, nutrient removal and wildlife habitat.

The wetlands functions and values impacted by the NECEC Project depend on their ecological characteristics; some of the influencing factors can include: size and proximity of wetlands to industrial or commercial activity, plant diversity and height, hydrogeomorphology and soil type. The effects of any

changes to these physical characteristics are evaluated in assessing whether the Project impacts will have a significant effect on wetland functions and values.

Each wetland was reviewed as part of a wetland delineation and field verification process performed during the 2015, 2016, 2017 and 2018 growing seasons. Wetland functions and values were recorded as part of that effort (and as part of the previous effort on the NECEC Project, for those Project segments co-located with the MPRP Project. Functions and values were assessed as "Principal," "Secondary," or "Not Suitable" based on the criteria provided in the Workbook. Observations for each wetland type were recorded on evaluation forms; these forms are included in Exhibits A through E of this report.

1.2 Results

1.2.1 Transmission Corridors

1.2.1.1 Habitat Conversion

As a result of the removal of vegetation to accommodate NECEC facilities, portions of forested wetlands will be permanently converted from forested to scrub-shrub or emergent communities. Some forested wetlands that meet the criteria to be WOSS will also be converted. For a definition and detailed descriptions regarding WOSS wetlands in the NECEC corridor, see Attachment 9 - Site Conditions, of this Application. Because WOSS represent areas of special significance, FVAs for forested WOSS and forested non-WOSS wetlands have been considered separately.

During field investigations, it was determined that all forested WOSS that will be converted during construction of the proposed NECEC facilities share similar functions and values. Likewise, all forested wetlands that are not (or do not contain) WOSS share similar functions and values. Furthermore, all scrub-shrub and emergent wetlands on the existing transmission corridors associated with the NECEC share similar functions and values. The scrub-shrub and emergent wetlands after conversion of forested wetlands are expected to be similar with respect to functions and values to the wetlands located in existing CMP corridors maintained as early successional habitat. For these reasons, this discussion provides a generic description of functions and values for forested WOSS, forested non-WOSS, and scrub- shrub/emergent wetlands. A discussion, which provides a comparison of functions and values between existing and expected future conditions and addresses overall impacts, is provided below.

Forested WOSS Functions and Values: Forested WOSS that will be converted as a result of the NECEC Project are generally similar to one another in overall tree composition. For those unique communities that may provide significant habitat (IWWH, DWA, SVP etc.) or that constitute an unusual

natural community (MNAP focus area, MNAP exemplary natural community etc.) additional descriptions are provided in Section 7 and Section 9 of the Site Law Application.

Attachment 9 of the NRPA application provides detailed descriptions of the forested wetlands for each of the Project segments. Dominant tree canopy species are likely to include red maple, green and black ash, balsam fir, black and red spruce, gray and yellow birch, eastern hemlock, and northern white-cedar. American elm and larch were also noted, but to a lesser degree. Several of these tree species are also present in the shrub and sapling strata. The understory is generally sparse in these wetlands with scattered occurrences of herbaceous species such as sensitive and cinnamon ferns, reed canary grass, and various sedge species.

The principal functions provided by forested WOSS are production export and wildlife habitat. Secondary functions are groundwater discharge, floodflow alteration, nutrient removal and transformation, and sediment/shoreline stabilization. WOSS associated with streams and rivers have functions that are associated with these resources such as floodflow alteration.

Some forested WOSS provide significant wildlife habitat features, while others consist of regionally significant wetlands having unique and more valuable functions and values. Within the northern portions of the Project area, WOSS that are associated with larger tracts of conservation land, public reserve land and/or state identified MNAP focus areas, tend to have additional values that are associated with these designated areas. Values such as recreation, uniqueness/heritage, and visual quality/aesthetics are common values associated with these larger non-fragmented land tracts. In addition, one potential function, endangered species habitat, may be present in wetlands associated with larger tracts of undeveloped surrounding land in the northern portion of the Project.

Groundwater discharge within forested WOSS in the NECEC Project conversion area is generally evidenced by the presence of seepages draining from the wetlands and into the streams. This typically occurs when there is a change in topography. Forested WOSS that will be converted by the NECEC provide limited floodflow alteration function. Most of the streams are small, with limited flow capacity; furthermore, floodplain areas are narrow with limited space to temporarily store floodwater.

Forested WOSS areas typically provide wildlife habitat values; specific values may include habitat for nesting passerines and winter cover for deer. In some cases, forested WOSS exhibiting pit and mound micro-topographic relief provide amphibian breeding habitat, and may function as vernal pool or significant vernal pool habitat. Most of the forested wetlands along streams provide indirect habitat value to fish and shellfish, by reducing insolation and thermal impacts through shading, reducing turbidity

through erosion control and by providing general habitat value. Riparian areas are used as travel corridors by many wildlife species. Streams also support food resources for wildlife. Wetlands adjacent to streams provide habitat for many avian species including waterfowl, wading birds, raptors, upland game birds, and passerines.

Forested WOSS that will be converted as a result of the NECEC Project provide production export by providing a potential source of timber and wildlife food sources, such as hard and soft mast and animal prey species. Nutrient removal and transformation as part of the food chain is a function generally provided by forested wetlands. Through conversion of forested lands to scrub-shrub, the food chain contribution is limited by the reduction of biomass annually produced in forested ecosystems.

Sediment/shoreline stabilization is typically provided by riparian wetlands such as those found in forested WOSS. This stabilization is provided by the roots of vegetation along the stream banks, which hold the soil together. This function is minimal along small streams, but is more valuable along larger streams and rivers especially near developments.

Values in forested WOSS that may be altered, but not lost, by the NECEC Project could include recreation, such as hunting and wildlife viewing. Although no direct observation of recreation such as hunting or wildlife viewing occurred, evidence of hunting included the presence of multiple tree stands used for hunting, both in and adjacent to forested WOSS. For some species, the addition of a transmission line corridor adds habitat value, particularly to heavily forested areas of the state. Transmission line corridors add vegetative, structural, and habitat diversity to an area that is otherwise predominantly forested, providing edge habitat and generally, increasing biodiversity. Transmission lines can also serve as wildlife travel corridors and may be used as recreational corridors for activities including hunting, hiking, wildlife viewing and snowmobiling.

A summary of functions and values for forested WOSS is provided in Table 2, and an example of a Wetland Function-Value Evaluation Form is provided in Exhibit B.

Forested non-WOSS Functions and Values: Forested non-WOSS wetlands that will be converted by the NECEC Project were documented to provide similar functions and values (Exhibit B) to the forested WOSS described above, with one exception: functions associated with water bodies, such as floodflow alteration, are not provided (Table 2) because waterbodies are not located within non-WOSS areas. Wildlife habitat and associated food chain functions are generally less than for WOSS due to the lack of direct connectivity with a waterbody.

Scrub-Shrub and Emergent Wetland Functions and Values: Within the Project area, scrub-shrub and emergent wetlands are dominated by early successional plant communities providing functions and values associated with early succession (Exhibit 3). These wetland cover types are maintained permanently in the course of normal transmission line corridor maintenance. To a lesser degree, mature and stable ecosystems also classified as scrub-shrub and emergent wetlands are present. These naturally low-growing, stable plant communities include alder thickets, ericaceous peatlands and sedge meadows.

Groundwater discharge is a common function as evidenced by small seeps, especially on sloping ground. Shrub and emergent wetlands that are associated with waterbodies provide floodflow alteration, and food chain and habitat functions. The annual growth and decomposition of vegetation contributes to nutrient cycling and biomass production. Wildlife food production associated with food chain functions, wildlife movement and hydrologic flushing via tributary streams, result in production export. In the northern portions of the Project area, peatlands dominated by low growing shrubs are more common. In some cases, these large emergent and/or scrub-shrub plant communities have the capacity to provide significant carbon sequestration; typically, these peatland wetlands attenuate nutrients thereby reducing the nutrient loading of waters that move through these wetland systems and improving water qualities. Values provided by these wetlands, particularly those situated in the northern portions of the Project area, include recreation, visual quality/aesthetic and potential endangered species habitat.

Several tracts of conservation land are within the northern portions of the Project areas. Some of these conservation lands are connected to adjacent conserved lands, both public and private. Several hunting stands were observed during field surveys, as were snowmobile and ATV trails, also having the potential to provide passive recreational opportunity.

1.2.1.2 Permanent Fill (Structure Installation)

Where avoidance is impossible, portions of some of the shrub and herbaceous wetlands will be impacted by the installation of new structures, which involves excavation, structure placement, and backfilling. The disturbed area is restored by replacing the topsoil, applying mulch, and allowing vegetation to grow essentially returning the disturbed areas to preconstruction conditions. Although these impacts are considered permanent, revegetation restores much of the preexisting functions. The full loss of functions is restricted to the small “footprint” of the structure.

1.2.1.3 Temporary Fill (Access Ways and Structure Preparation Pads)

To the extent possible, all proposed temporary access ways and structure preparation pads in wetlands will be sited in such a way to avoid and minimize impacts. As an example, whenever possible and where existing infrastructure and topography do not present safety concerns, access ways will be located through the narrowest portions of wetlands.

Based on field observations and application of the Highway Methodology, most of the wetlands that will be temporarily filled provide the following principal and secondary functions and values:

1. Principal functions: Groundwater discharge; floodflow alteration, sediment/shoreline stabilization and wildlife habitat
2. Secondary functions: Production export
3. Principal values: None
4. Secondary values: Recreation

A summary of typical functions and values associated with wetlands that will be subjected to temporary fill is provided in Table 2 and an example of a Wetland Function Value Evaluation Form is provided in Exhibit E.

Many of these wetland areas are currently composed of the scrub-shrub and emergent cover types. The exception is when proposed access ways are planned in areas that are currently forested wetland, but will be converted to accommodate additional transmission line corridor. All areas of temporary fill will be restored to preconstruction conditions. Denuded soils will be seeded, mulched and, if necessary, further stabilized. As a result, no permanent loss of wetland functions and values is anticipated.

1.2.2 Substations

The NECEC Project will include construction of the Merrill Road Converter Station, Fickett Road Substation and the Moxie Gore and West Forks Termination Stations, as well as facility upgrades at six existing substations (Larrabee Road, Crowley's, Surowiec, Raven Farm, Coopers Mills, and Maine Yankee). There are no mapped wetlands within the footprint of the six existing substations and therefore no impacts to wetland functions and values.

There will be no wetland conversion associated with the converter station and substation construction; all wetland impacts associated with these activities will be the result of fill. The area (in both acres and

square feet) of wetland fill that will be required for development of each substation is presented in Table 1 above. Functions and values of wetlands that will be filled at each substation site are described in detail, below.

1.2.2.1 Merrill Road Converter Station

CMP completed field delineations of wetlands and water resources within the proposed footprint of the converter station in 2017. The parcel contains a mix of forested uplands and wetlands, plus herbaceous wetlands that lie within the existing transmission line corridor (Section 1.2.1). The surrounding and nearby land uses include forested uplands and wetlands, agricultural fields, single-family residential development, and a roadway. The forested canopy is characterized by second or third growth. Three different wetlands are found in the parcel slated for the substation. However, only two of the wetlands will be partially impacted due to the development. There is also a small stream that flows through the northern corner of the parcel, but it does not extend into the proposed development area.

A forested, small finger of wetland 145-1 extends into the western side of the proposed development area. However, this forested finger is part of a larger, mostly shrub and emergent wetland that lies within the existing transmission line corridor. The small stream that flows through the northern corner of the parcel is also connected to this larger wetland. Wetland areas within 25 feet of the stream are WOSS. The primary functions of the larger wetland complex are groundwater recharge/discharge and wildlife habitat. Wetland 145-1 drains toward tributaries associated with Stetson Brook. Groundwater discharged into the wetland eventually flows toward the drainage basin for Stetson Brook. In addition to groundwater discharge, wildlife habitat functions are provided by wetland 145-1. The wetland contains structural diversity, as it consists of emergent, scrub-shrub and forested components. Wetland within the transmission line corridor contains four shallow, natural vernal pools, which did not contain egg mass numbers high enough to trigger significance status. Also observed were three, low quality, man-made ruts that also function as amphibian breeding areas. The forested finger of this wetland provides cover for wildlife such as deer and passerines. Secondary functions include sediment retention and floodflow alteration. The vast nature of wetland 145-1 and its constricted outlet provide the conditions for floodflow alteration function. During rain events, this wetland has the ability to store large quantities of water before draining into the Stetson Brook watershed. Dovetailing on floodflow alteration, is the wetland's ability to provide sediment and toxicant retention. Local ATV use and tree harvesting activity have the potential to leave soils exposed and at risk for mobilization within runoff. The relatively flat nature of wetland 145-1 can provide the opportunity for sediment trapping before runoff is discharged into local watercourses.

The second wetland that will be impacted by the Project is wetland 145-2, a PFO wetland, characterized by deep organic soils. The basin of this wetland contains a natural vernal pool and a SVP, and is therefore a WOSS. The SVP is a relatively large vernal pool that contained at least 75 wood frog egg masses and 25 spotted salamander egg masses during spring 2017 field studies. Both vernal pools are positioned in the northern portion of the wetland, the portion that will likely be impacted by site development. However, the vernal pool depressions are located outside of the limits of disturbance for the substation site development.

The primary function of the wetland is wildlife habitat as indicated by the presence of the two vernal pools. Secondary functions provided by this wetland include groundwater recharge/discharge and production export. During field investigations, several areas of ledge and resulting seeps were observed surrounding the basin shaped wetland. Wetland 145-2 has the capacity to produce a significant source of biomass, through vegetative production as well as amphibian production. As amphibians are consumed by predators or disperse naturally, the biomass produced by the wetland is exported to adjacent uplands.

1.2.2.2 Fickett Road Substation

The NECEC Project will include the construction of a new substation facility on approximately 6.12 acres near the intersection of Allen Road and Fickett Road in Pownal. The land area sited for development is a mixture of agricultural fields, open and forested uplands, and shrub and emergent wetlands.

A portion of wetland 161-16 will be impacted as a result of site development. However, the agricultural field component of the site has been impacted by prior agricultural practices of mowing and ditching. Wetland 161-16 is associated with Runaround Brook, therefore, wetland areas within 25 feet of the brook are classified as WOSS.

The primary functions of this wetland are groundwater discharge and floodflow alteration. Wetland 161-16 provides groundwater discharge by draining groundwater into the associated stream channel of Runaround Brook. As mentioned above, historically this wetland has been altered by anthropogenic activity, including mowing and ditching. Ditches can be seen from aerial photography and tend to expedite the groundwater discharge function of the wetland. Floodflow alteration is also a primary function of wetland 161-16. The large, flat composition of this wetland in combination with thick herbaceous cover create the conditions suitable for floodwater storage. During significant rain events, this wetland has the capacity to store and slowly release surface water to the adjacent Runaround Brook and its tributaries. Slow release of floodwaters reduces runoff velocity and results in less erosion. Secondary functions of wetland 161-16 include sediment and toxicant retention, nutrient removal and wildlife

habitat. As often is found with flood storage, sediment and toxicant retention is a function that could be provided by this wetland. Broadly and gently sloping topography and thick herbaceous cover provide the conditions for sediment and toxicant retention. While opportunity for sediment and toxicant retention are available, currently there are minimal sources of excess sediment. This wetland may provide this function, however, during high velocity runoff events, particularly during local construction activity. Nutrient removal is also a secondary function provided by wetland 161-16. Nutrients dissolved in the surface water from local animal pasturing and agricultural fields can be absorbed by the thick herbaceous wetland vegetation. Wildlife habitat functions are limited to general habitat values for deer, passerines, raptors, small mammals and small predators.

1.2.2.3 Moxie Gore and West Forks Termination Stations

CMP submitted an Application Amendment on October 19, 2018 to include an HDD crossing of the Upper Kennebec River. Two wetlands areas, totaling approximately 11,279 square feet, are located in the existing land management gravel road which will be used to access the Moxie Gore Termination Station. No wetlands are associated with the development of the West Forks Termination Station. Development of these degraded wetland areas will result in a de minimis impact to wetland functions and values but are nonetheless accounted for in the ILF payment proposed in the Project's Compensation Plan.

1.3 Discussion

1.3.1 Transmission Corridors

1.3.1.1 Habitat Conversion

Table 2 summarizes changes to wetland functions and values that could result from converting forested wetlands to shrub and emergent wetlands. The removal of capable tree, sapling, and shrub species and specimens, coupled with maintenance, creates and maintains permanent early successional communities with different functions and values. Some functions are enhanced and others are diminished. Habitat functions are altered with some species or aspects of their life cycle benefiting and others not. Generally, the growth of shrub and emergent vegetation promotes species diversity, stem density, annual growth and decomposition, and increased layering of vegetation. Forage, cover, and habitat values for wildlife species are different in early successional communities with increased herbaceous forage, soft mast, grass and sedge seeds, tubers, and flowering plants and increased cover. The removal of capable species reduces shading and hard mast production and loss of winter cover for some species. Overall in a densely forested region, converting forested areas to shrub and emergent communities can increase habitat diversity.

Improved wetland functions are summarized as follows:

1. Increasing groundwater discharge;
2. Slowing and constricting floodwater
3. Retaining sediments and nutrients;
4. Increasing nutrient cycling and building up of organic matter;
5. Increasing ecological production including wildlife food sources;
6. Producing merchantable timber; and
7. Increasing habitat for early successional species.

Diminished wetland functions are summarized as follows:

1. Decreasing shading along small streams;
2. Eliminating recurring timber harvests; and
3. Reducing habitat for arboreal species.

Enhanced functions include an increased amount of groundwater discharge that noticeably results within transmission line corridors. The removal of capable species creates permanent early successional conductions which often develop well vegetated and diverse communities. Dense shrub and herbaceous vegetation can slow the flow of water in streams and increase floodflow alteration functions, slowing and retaining sediments and nutrients.

For wetlands found along streams, the production export and cycling of nutrients to the stream ecosystem via detritus may be enhanced by conversion. Ecological productions, diversity, stem density, annual growth, and decomposition will increase. This is a contribution to the local food chain and supports habitat values. Often early successional habitats produce more soft mast and insects as wildlife food sources. Harvesting timber for sale as lumber, cord wood, and pulp is provided by the initial conversion of forested wetlands to shrub and emergent wetlands. The conversion of forested wetland to shrub or herbaceous wetland will favor species that require and/or use early successional habitat. This will also reduce the habitat value to arboreal species; however, similar habitat is abundant in contiguous and adjacent forested wetlands. Hunting value will remain after clearing as habitat for game species will still be present.

None of the functions or values provided by forested wetlands that will be converted as a result of the construction of the transmission lines will be completely lost or severely diminished by the conversion of forested wetlands to scrub-shrub and emergent wetlands. Removal of trees will decrease cover and

shading provided to streams from these wetlands; however, streams in electrical transmission corridors are generally protected to allow development of dense shrub buffers which provide shading to smaller streams. Conversion eliminates forest management land practices and recurring timber harvests. Wildlife habitat functions are altered with a reduction in habitat for arboreal species. On balance, there is a positive net benefit with regard to functions and values. This is particularly true, given that approximately 90 percent of the State of Maine is forested. A comparison of functions and values provided by forested, shrub and emergent wetlands is provided in Table 2.

Table 2: Comparison of Wetland Functions and Values for Forested Wetlands Converted to Shrub and Emergent Wetlands in Transmission Line Rights-of-Way

Function/Value	Considerations Improved	Considerations Diminished	Considerations Not Changed
Groundwater Recharge/Discharge	13: Signs of groundwater discharge increase, especially on slopes with poorly draining soils, and wetland extents often expand	None	1-12; 14-16
Floodflow Alteration	18: Removal of canopy will create favorable conditions for emergent and shrub vegetation growth that can slow water flow	None	1-17
Fish/Shellfish Habitat Freshwater	None	8: Decreased shading values along small coldwater streams. Shading can be maintained by increased shrub density	1-7; 9-17
Sediment/Toxicant/Pathogen Retention	15: Water and vegetation interspersion can increase 16: Vegetation density can increase	None	1-14
Nutrient Removal/Retention/ Transformation	8: Vegetation density can increase 9: Aquatic vegetation diversity and abundance increases 11: Decomposing organic matter can increase 13: Increased shrub and emergent vegetation can constrict and slow water flow leaving the wetland	None	1-7; 10; 12; 14
Production Export	1: Forage, soft mast, and seed food sources can increase 2: Detritus development can increase 3: Commercially valuable timber is removed 4: Wildlife use changes 5: Higher trophic level consumer use changes 7: Vegetation density can increase 8: Vegetation diversity can increase 9: Aquatic vegetation can increase 12: Density of flowering plants can increase	1: hard mast food sources can decrease 3: Future timber production is eliminated 4: Wildlife use changes 5: Higher trophic level consumer use changes	6; 10; 11; 13; 14

Function/Value	Considerations Improved	Considerations Diminished	Considerations Not Changed
Sediment/Shoreline Stabilization	12: Shrub and herbaceous vegetation can increase 13: Emergent vegetation 15: A dense resilient herbaceous vegetation layer can develop	14: Larger trees and shrubs are removed	1-11
Wildlife Habitat	8: Forage, soft mast, and seed food sources can increase 9 & 13: Shrub and emergent vegetation can increase 14: Plant species diversity increases as shrub and emergent species grow 15: Shrub, emergent and vine growth increases 21: Increase of habitat for ground and shrub dwelling avian species and mammalian species that need dense cover	8: Hard mast food sources can decrease 15: Loss of canopy results in a decrease in diversity of woody vegetation 21: Loss of habitat for arboreal avian and mammalian species	1-7; 10-12; 16-20; 22; 23
Recreation	None	None	1-12
Education/Scientific Value	None	None	1-16
Uniqueness/Heritage	None	None	1-31
Visual Quality/Aesthetics	None	None	1-12
Endangered Species Habitat	Site and Species Specific	Site and Species Specific	1-2

1.3.1.2 Permanent Fill (Pole Installation)

Pole installation creates permanent wetland impacts and the negligible loss of wetland functions. The area of permanent fill encompasses 30 to 195 per structure depending on structure type, although much of this area is restored and grows back into an herbaceous wetland community. The actual permanent loss of functions and habitat is restricted to the pole diameter or structure foundation. The small physical loss of wetland equates to a negligible loss of wetland functions and values relative to the remaining wetland area. For example, structure installation in a wetland would not diminish the habitat functions and value to hunting, but there would be very minor, i.e., *de minimis* loss of food chain contribution and groundwater discharge.

1.3.1.3 Temporary Fill (Access Ways and Structure Preparation Pads)

The placement of temporary fill to construct access ways and structure preparation pads results in temporary wetland impacts and a minor temporary loss of wetland functions and values. After the access ways and structure preparation pads are no longer needed, the temporary fill (typically equipment mats) is removed and the affected areas are restored. The restoration effort may involve seeding, if necessary (wetland seed mix can be added to areas that have been denuded) and mulched with a layer of straw. If necessary, compacted soils will be scarified with an excavator bucket to loosen the surface of the soil, then seeded and mulched as needed. In addition, all ruts in wetlands will be smoothed out and graded to match pre-construction contours to the extent practicable. All temporarily affected wetlands are expected to exhibit preconstruction-level functions and values within one to two years following the completion of construction activities.

1.3.2 Substations

Table 3 summarizes the functions that will be affected by the development of the new substations. Most of the wetlands that will be impacted provide groundwater discharge and wildlife habitat functions. Food chain contribution through production export and nutrient removal are functions provided by the larger and interconnected wetlands, especially those with diverse and dense emergent vegetation. These wetlands often have greater biomass production and annual decomposition than forested wetlands, which tend to provide less food chain functions.

The construction of the Merrill Road Converter Station will require fill impacts to two wetlands. One wetland contains significant habitat values associated with an SVP. Fill impacts will also reduce the

groundwater discharge function, while clearing will alter habitat values favoring species that use early successional shrub habitat.

Impacts to wetlands on the Fickett Road Substation site will likely affect habitat and groundwater functions provided by shrub and emergent wetland. Nutrient removal and floodflow functions will also be diminished.

Table 3: Summary of Wetland Functions and Values for the Wetlands Impacted by Substation Construction

Wetland ID Area	Impact Area (ac. & sq. ft.)	Functions and Values	
		Principal	Secondary
Fickett Road Substation			
WET 161-16	1.33ac / 57,935 sq. ft.	Floodflow alteration; Groundwater recharge/discharge	Sediment toxicant/retention; nutrient removal; wildlife habitat
Merrill Road Converter Station			
WET 145-01	3.05 ac / 132,858 sq. ft.	Groundwater discharge/recharge; wildlife habitat	Sediment/toxicant retention; floodflow alteration
WET 145-02	.03 ac / 1,307 sq. ft.	Wildlife habitat	Groundwater recharge/discharge; production export
Moxie Gore Termination Station Access Road			
WET-WJB8	0.14 ac / 6,123 sq. ft.	Sediment/toxicant retention	n/a
WET-WJB9	0.12 ac / 5,156 sq. ft.	Sediment/toxicant retention	n/a

Exhibit A: Wetland Function- Value Evaluation Form for Forested Wetlands of Special (WOSS) Transmission Line Impacts

Attachmnent I, Exhibit A: Wetland Function - Value Evaluation Form for Forested Wetlands of Special Significance (WOSS) Transmission Line Impacts

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID Forested WOSS. Adjacent land use Transmission line and forests. Distance to nearest roadway or other development? Generally 0.5 mile average. Dominant wetland systems present. Palustrine forested broad-leaved deciduous. Contiguous undeveloped buffer zone present. YES, upland/wetland forest. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Generally along 3rd or 4th order streams. Impact: Type Conversion Area **Exhibit B-1 of this 404 CWA Application**. How many tributaries contribute to the wetland? Generally 2 or 3. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1; 7; 13	Secondary	Seepage discharge into streams/floodplain
Floodflow Alteration	X		2; 10; 13	Secondary	Upper end of watersheds, small size
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 5; 14	Principal	Veg prod/decomp, wildlife food sources
Sediment/Toxicant Retention		X			
Nutrient Removal	X		5; 7; 8; 10; 12; 13	Secondary	Veg production/decomposition: food chain
Sediment/Shoreline Stabilization	X		6; 7; 9; 14	Secondary	Found along streams and roots hold soil
Wildlife Habitat	X		1-4; 5; 6; 7; 8; 9; 13-15; 17-22	Principal	General habitat values, large tracts of undeveloped land/habitat blocks, vernal pool habitat
Education/Scientific Value		X			
Recreation	X		1-7	Secondary	Potential for hunting/trapping/hiking/ATV/snowmobile/wildlife viewing
Uniqueness/Heritage	X		4-7; 10-14	Secondary	Areas near the Cold Stream Forest identified by large-scale regional conservation planning groups as primary lands of biological significance.
Visual Quality/Aesthetics	X		5; 7-8; 10-12	Secondary	Some wetlands located within state identified MNAP Focus Areas; other wetland areas situated within conservation areas/large habitat blocks/public reserve land
Endangered Species Habitat	X		2	Secondary	Some wetlands may provide habitat for RTE species
Other					
Notes: Several wetland areas associated with deer wintering areas, potential RTE species habitat, IWWH, conservation land, public reserve lands, MNAP focus areas (Cold Stream Focus Area & Attean Pond - Moose River Focus Area)					

Exhibit B: Wetland Function- Value Evaluation Form for Forested Wetlands – Non WOSS Transmission Line Impacts

Attachment I, Exhibit B: Wetland Function - Value Evaluation Form for Forested Wetlands - Non WOSS Transmission Line Impacts

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID Forested Non WOSS. Adjacent land use Transmission line and forests. Distance to nearest roadway or other development? Generally 0.5 mile average. Dominant wetland systems present. Palustrine forested broad-leaved deciduous. Contiguous undeveloped buffer zone present. YES, upland/wetland forest. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Generally part of larger wetlands not associated with streams. Impact: Type Conversion Area **Exhibit B-1 of this 404 CWA Application**. How many tributaries contribute to the wetland? None. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1; 7; 13	Secondary	Seepage discharge during the spring and summer
Floodflow Alteration		X			
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 5; 14	Principal	Veg. prod/decomp, wildlife food sources
Sediment/Toxicant Retention		X			
Nutrient Removal		X			
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		1-4; 5; 6; 7; 8; 9; 13-15; 17-22	Principal	General habitat values, large tracts of undeveloped land/habitat blocks, vernal pool habitat
Education/Scientific Value		X			
Recreation	X		1-7; 7	Secondary	Potential for hunting/trapping/hiking/ATV/snowmobile/wildlife viewing
Uniqueness/Heritage	X		4-7; 10-14	Secondary	Areas near the Cold Stream Forest identified by large-scale regional conservation planning groups as primary lands of biological significance.
Visual Quality/Aesthetics	X		5; 7-8; 10-12	Secondary	Some wetlands located within state identified MNAP Focus Areas; other wetland areas situated within conservation areas/large habitat blocks/public reserve land
Endangered Species Habitat	X		2	Secondary	Some wetlands may provide habitat for RTE species
Other					

Notes: Several wetland areas associated with deer wintering areas, potential RTE species habitat, IWWH, conservation land, public reserve lands, MNAP focus areas (Cold Stream Focus Area & Attean Pond - Moose River Focus Area)

Exhibit C: Wetland Function- Value Evaluation Form for PSS and PEM Wetlands

Transmission Line Impacts

Attachment I, Exhibit C: Wetland Function - Value Evaluation Form for PSS and PEM Wetlands Transmission Line Impacts

Human made? NO. Is wetland part of a wildlife corridor? YES, or a "habitat island"? NO. Wetland ID N/A. Adjacent land use i.e., farm fields, transmission line, upland and forests. Distance to nearest roadway or other development? >50 feet. Dominant wetland systems present PSS1 & PEM1. Contiguous undeveloped buffer zone present. No. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Upper. Impact: Type Fill Area **Exhibit B-1 of this 404 CWA Application.** How many tributaries contribute to the wetland? One. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		2; 7	Secondary	Groundwater controlled hydrology
Floodflow Alteration		X			
Fish and Shellfish Habitat		X			
Production Export	X		1; 2; 4; 7	Secondary	Vegetation prod/decomp: food chain
Sediment/Toxicant Retention		X			
Nutrient Removal	X		4; 5; 8; 9; 10	Secondary	Ag fields are a potential source of nutrients
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		5; 6; 7; 8; 13	Secondary	General habitat, passerines, white-tailed deer; moose, beaver, muskrat, waterfowl
Education/Scientific Value		X			
Recreation	X		3; 5; 6	Secondary	Potential for hunting/trapping/hiking/ATV/snowmobile/wildlife viewing
Uniqueness/Heritage	X		32	Secondary	Appalachian Trail passes through portion of project area
Visual Quality/Aesthetics	X		5; 7-8; 10-12	Secondary	Some wetlands located within conservation areas/large habitat blocks/public reserve land
Endangered Species Habitat	X		2	Secondary	Some wetlands may provide habitat for RTE species
Other					
Notes:					

Exhibit D: Wetland Function – Value Evaluation Criteria

Attachment I, Exhibit D(a): Wetland Function-Value Evaluation Form: Fickett Road Substation Emergent/Shrub Wetland 161-16

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID 161-16. Adjacent land use farm fields, transmission line, upland and forests. Distance to nearest roadway or other development? >50 feet. Dominant wetland systems present PEM1 & PSS1. Contiguous undeveloped buffer zone present. No. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Lower. Impact: Type Fill Area (302.82 sq. ft.). How many tributaries contribute to the wetland? One. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		2; 7; 9; 12; 13; 15	Principal	Groundwater controlled hydrology
Floodflow Alteration	X		1; 3; 5; 6; 8-14; 16; 18	Principal	Wetland is broad with thick vegetation, able to detain large amounts of water
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 7; 12; 13		Wetland is mowed/hayed
Sediment/Toxicant Retention	X		3-5; 7; 8; 10-14; 16	Secondary	Wetland provides opportunity for sediment trapping
Nutrient Removal	X		3; 4; 5; 7; 8-14	Secondary	Ag fields are a potential source of nutrients
Sediment/Shoreline Stabilization	X		5; 7; 9; 12; 15		Wetland bordering associated stream reduces water velocity of watercourse
Wildlife Habitat	X		5-8; 13; 17-21	Secondary	General habitat, passerines, white-tailed deer; small mamals
Education/Scientific Value		X			
Recreation		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics	X		2; 5; 7; 9-12		Scenic wetland but not unique to area
Endangered Species Habitat		X			
Other					
Notes:					

Attachment I, Exhibit D(b): Wetland Function-Value Evaluation Form: Merrill Road Converter Substation Wetland 145-01 PSS/PEM

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID 145-01.Adjacent land use: Adjacent ROW, residential, upland and forests. Distance to nearest roadway or other development? ~1,000 feet. Dominant wetland systems present PSS1 & PEM1. Contiguous undeveloped buffer zone present. Yes. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Upper. Impact: Type Fill Area (344.99 sq. ft.). How many tributaries contribute to the wetland? One. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1; 7; 13	Principal	Seepage discharge from upland to wetland
Floodflow Alteration	X		1; 3; 5; 6; 8; 9; 13; 15	Secondary	Expansive area and constricted outlet provide effective flood storage.
Fish and Shellfish Habitat		X			
Production Export	X		1; 2; 4; 7		Veg. prod/decomp; food chain
Sediment/Toxicant Retention	X		4; 5; 7-13; 15; 16	Secondary	Opportunity for sediment trapping exists: thick vegetation, large storage capacity
Nutrient Removal	X		5; 7; 8; 10; 12; 13		Veg. prod/decomp; food chain
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		3; 5-8; 13; 16	Principal	General habitat, amphibian habitat
Education/Scientific Value		X			
Recreation		X			Unlikely to provide hunting due to close proximity to development; some ATV use nearby
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
Endangered Species Habitat		X			
Other					
Notes:					

Attachment I, Exhibit Dc: Wetland Function-Value Evaluation Form: Merrill Road Converter Station Wetland 145-02 PFO

Human made? NO. Is wetland part of a wildlife corridor? Yes, or a "habitat island"? NO. Wetland ID 145-02. Adjacent land use: Adjacent ROW, residential, upland and forests. Distance to nearest roadway or other development? ~1,000 feet. Dominant wetland systems present: PFO1/4E. Contiguous undeveloped buffer zone present. Yes. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Upper. Impact: Type Fill Area (0 sq. ft.). How many tributaries contribute to the wetland? None. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		2; 7; 13	Secondary	Seepage discharge from upland to wetland
Floodflow Alteration	X		3; 5; 6; 8; 9		Basin like formation and deep organic soils provides opportunity for storage
Fish and Shellfish Habitat		X			
Production Export	X		1; 2; 4; 7	Secondary	Veg. prod/decomp; food chain; movement via amphibians and other wildlife
Sediment/Toxicant Retention		X			Opportunity exisits, however no sources present
Nutrient Removal	X		5; 7; 8; 10; 12; 13		Veg. prod/decomp; food chain
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		4; 5; 7; 16	Principal	General habitat, evidence of amphibian habitat
Education/Scientific Value		X			
Recreation		X			Unlikely to provide hunting due to close proximity to development
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
Endangered Species Habitat		X			
Other					
Notes:					

Exhibit E: Wetland Function-Value Evaluation Form- Wetlands Subjected to Temporary Fill- Access Ways

Attachment I, Exhibit E: Wetland Function-Value Evaluation Form - Wetlands Subjected to Temporary Fill - Access Way

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland Early-successional. Adjacent land use: Transmission line, upland and forests. Distance to nearest roadway or other development? 0.5 mile average. Dominant wetland systems present: Palustrine scrub-shrub and emergent persistent. Contiguous undeveloped buffer zone present. YES. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Generally along 3rd and 4th order stream. Impact: Temporary fill for construction access. How many tributaries contribute to the wetland? Variable (1-3). Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1; 7; 13	Principal	Seepage discharge into streams/floodplain/wetlands
Floodflow Alteration	X		2; 10; 13	Principal	Upper end of watersheds, small size
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 5; 14	Secondary	Veg. prod/decomp, wildlife food source
Sediment/Toxicant Retention		X			
Nutrient Removal		X			
Sediment/Shoreline Stabilization	X		6; 7; 9; 14	Principal	Found along streams and roots hold soil
Wildlife Habitat	X		4; 5; 6; 7; 8	Principal	General habitat values
Education/Scientific Value		X			
Recreation	X		3; 5; 6	Secondary	Recreational hunting/trapping
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
Endangered Species Habitat		X			
Other					
Notes:					